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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/502,810	02/11/2000	Jonathan S. Brecher	103544.127	5710

7590
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05/07/2002

EXAMINER

ALLEN, MARIANNE P

ART UNIT	PAPER NUMBER
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1631

DATE MAILED: 05/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/502,810

Applicant(s)

BRECHER, JONATHAN S.

Examiner

Marianne Allen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/15/02 has been entered.

Claims 1-20 are under consideration by the examiner.

Information Disclosure Statement

Applicant is encouraged to file an Information Disclosure Statement and is reminded of their duty to disclose information which is material to the patentability of the claims.

Specification

Applicant is advised that although the specification at page 1 references a microfiche appendix of 382 frames on four sheets of microfiche, the application file contains no microfiche.

Applicant is advised that although the specification and arguments reference a 111 page appendix, this is not part of the specification. These appendix pages contain text and not computer code. The transmittal papers clearly indicate that the specification is 33 pages (including the claims, abstract, and drawings). While there are provisions for appendices containing computer code and tables over fifty pages in length, the content of the instant appendix is neither and the examiner is not aware of any provision for such an appendix. If

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applicant intended this to be part of the specification, the specification should be amended to insert these pages prior to the claims. (See MPEP 608.05.)

Claim Rejections - 35 USC § 112

Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a new matter rejection.

The amendment filed 6/18/01 (amendment A) added new claims 5-20. No basis in the specification was provided for any of these claims and none is apparent. There does not appear to any contemplation of the limitations of claims 5-20 with respect to the original method of claim 1 or computer software of claims 16-20.

Original claims 1 and 3-4 were also amended to include new limitations. Applicant has subsequently pointed to basis on page 21, line 15, for the limitations to “the first and second fragments being non-contiguous.” However, no basis has been pointed to for the limitations “acquiring a chemical name lacking an association with a chemically accurate computer readable diagrammatic representation of a substance identified by the chemical name” and “applying computer executable logic to the first and second fragments” and none is apparent. Basis for the “acquiror” in the system of claim 3 has not been provided.

Applicant's arguments with respect to the “non-contiguous” limitations are not agreed with and are still deemed to constitute new matter. Page 21, line 15, concerns the consolidation process. This process follows the parsing operation where the text string is fragmented according to certain rules into substrings. As such, the language “non-adjacent fragments” on

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page 21, line 15, doesn't provide any basis for the subject matter now claimed. Likewise, there does not appear to any contemplation of the limitations of claims 5-20 with respect to the amended method of claim 1 or computer software of claims 16-20.

Applicant is reminded that they must provide basis by page and line number for every new limitation or claim submitted.

Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. This is an enablement rejection.

Claim 1 and dependent claims 2 and 5-15 are directed to a method for use in deriving chemical structural information.

Claim 3 is directed to a system for use in deriving chemical structural information.

Claim 4 and dependent claims 16-20 are directed to computer software residing on a computer-readable storage medium.

The method of claim 1 requires "parsing," "applying computer executable logic," and "determining...chemically accurate computer readable diagrammatic representations of the first and second fragments." The specification discloses a method of processing a text string for a chemical name according to some very specific text processing rules (e.g. converting all to lower case) and some very specific chemical nomenclature rules (e.g. separating the string "pentane" into the substrings "pent" and "ane" and not the substrings "penta," "n," and "e".) The text substrings are associated with particular data regarding its type/subtype and original position in

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the text string (context/environment). The specification discloses a method of consolidating the resulting meaningful substrings according to a particular algorithm to build a chemically accurate computer readable diagrammatic representation of the final resulting structure using a connectivity table. This is not the method, system, or computer software being claimed.

All of the claims as written are lacking critical elements. The specification does not provide guidance on general parsing strategies to generate chemically accurate structures from text strings. (Note that only claim 2 even requires text strings.) The specification does not provide guidance on general computer executable logic strategies to generate chemically accurate structures from text strings. The verbs "parsing," "applying," and "determining" do not describe with particularity nor enable the specific and concrete actions that must be taken to achieve or accomplish the stated goal.

With respect to claims 5 and 16, "making a change...to facilitate subsequent analysis." The specification provides no general guidance on what changes would facilitate subsequent analysis.

With respect to claims 6 and 17, the claims do not provide the critical feature(s) that results in detection or identification that a text string is a chemical name in inverted form. Note that the specification requires particular text analysis of the context and environment.

With respect to claims 7 and 18, "inserting a delimiter" does not describe with particularity what is to be inserted, where it is to be inserted, and for what purpose it is to be inserted. (See new matter rejection.) The specification does not provide guidance for methods where an unspecified delimiter is randomly added to the chemical name.

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With respect to claims 11-13, the specification provides a specific example of a “locant map,” a “attach-in map,” and an “attach-out map.” There is no disclosure of the metes and bounds of all such data objects that are intended to be encompassed by these terms nor guidance on how to make or use them. The art of record and in the specification do not demonstrate that these are well known and routinely used maps in the area of chemical structural derivation.

With respect to claim 14, the specification does not provide guidance on different criteria for selecting the portion of the contents nor determining whether it is “representative of” the fragments. That is, one of skill in the art would not have any basis for knowing when this limitation had been met.

With respect to claims 8, 9, 19, and 20, the specification does not provide guidance on comparing the first or second fragment to unspecified chemical characteristics data. That is, there is no guidance on performing a method where the fragments are compared to or associated with molecular weight data or NMR spectroscopic data.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7-16, 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Boyer et al. (U.S. Patent No. 5,345,516).

Boyer et al. discloses a method, computer system, and computer software for parsing text strings representing a chemical name and generating the correct structural diagram from this.

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The text string is broken into fragments according to particular rules to facilitate the analysis, the fragments are associated with the appropriate chemical structural information using delimiters and connection tables. See abstract; claims; Appendix J; Figure 12; column 1, line 44, through column 2, line 1; column 12, line 32, through column 14, line 40. Although the specific names of the maps in claims 11-13 are not recited in Boyer et al., the concepts they represent appear to be disclosed by the stack manipulations (create-stack, find-group, connect, test) before the structural diagram is completed.

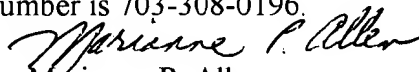
Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne P. Allen whose telephone number is 703-308-0666. The examiner can normally be reached on Monday-Friday, 7:00 am - 1:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on 703-308-4028. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.


Marianne P. Allen
Primary Examiner
Art Unit 1631

mpa
May 3, 2002